



Massachusetts Department of Energy Resources
Creating A Greener Energy Future For the Commonwealth

Energy Leaders: Energy Efficiency and Office Space

The Massachusetts Department of Energy Resources (DOER) has created a web resource to showcase a variety of energy-saving measures being employed in the private sector. The CISCO Systems case study below represents the first in a series of case studies providing details about energy efficiency measures for office spaces.

If you're a business interested in learning more about energy measures, programs, and information resources, visit the DOER Web page for the Commonwealth Energy Resource Team: <http://tinyurl.com/DOER-CERT>

CISCO Systems Employs Energy Efficiency at Massachusetts Facility

The CISCO Systems New England Development Center (NEDC) is a 400,000-square foot campus of four office buildings located in Boxborough with ISO14001 and ISO9001 Certification. The company's dedicated team overseeing and maintaining the facility's energy management systems has achieved significant savings since the campus opened five years ago.



Pictured: Dr. Beka Kosanovic of the UMass CEERE (back row, second from right) with CISCO staff

***"In partnership with the Commonwealth Energy Resource Team, CISCO is demonstrating an exceptional level of awareness and commitment to energy conservation here in Massachusetts."
Paul Bosco, CISCO VP &
Site Executive - NEDC***

An *Energy Resource Conservation Report* recently prepared by the UMass Center for Energy Efficiency and Renewable Energy (UMass CEERE) analyzed the energy-related practices of the NEDC, and concluded that the Center "has demonstrated an exceptional level of awareness and commitment to energy conservation measures."

"This is an exciting time in a challenging environment for CISCO Systems and the Commonwealth. To ensure the viability of energy for future generations and make an impact on our existing local community we must continue to work together with organizations like DOER to drive innovative technologies and efficiencies. Our company is committed to setting a positive technological and environmental example in the region."

Paul Bosco, CISCO VP & Site Executive - NEDC

Energy Efficiency Measures: Below is a description of some of the industry-leading and innovative energy saving technologies being leveraged by the NEDC:

- **Energy Management Control System** – All of the facility's control systems for heating, ventilation, air conditioning and energy management applications are managed with Automated Logic. The system can automatically respond to shifting climates in the building to ensure comfort for everyone.
- **Chilled Water System Upgrades** – The water chillers have all been upgraded to include variable speed drives on all pumps and cooling equipment to obtain the highest efficiency levels.
- **High Efficiency Lighting** – The entire campus has been fitted with highly efficient T5 fluorescent lights. Occupancy sensors have been installed to automatically shut off the lights when people are not in a room. Using occupancy sensors can eliminate 20 to 80 percent of lighting energy costs.
- **Daytime Warm-Up** - During the early morning hours and colder seasons, when heat is needed most to warm the building, the daytime warm-up system automatically switches from electric reheat coils to perimeter natural gas fired heaters. This practice results in substantial electricity savings.



Other practices: In addition to the above best practices, a series of new and upcoming changes are driving even greater energy efficiency and sustainability at the company. Among these are a comprehensive recycling program for glass, plastic and paper to maintain an eco-friendly environment, and an agreement with the local waste water treatment plant to lower its indoor temperatures during the winter months to drastically reduce heating costs. CISCO is also in the process of considering solar PV, day-lighting sensors and controls, variable frequency drives, additional lighting replacements, LED exit signs, and participating in demand response programs.

Learn More About Energy

For more information about these and other energy measures for office space facilities, go to the DOER Commonwealth Energy Resource Team Web site. This resource was established to assist businesses as they face the ongoing challenges of complete energy planning. Available information includes:

- How to leverage existing utility and state offered programs
- Comprehensive energy audits
- Energy tracking tools
- Efficiency and on-site clean energy solutions
- Funding opportunities
- Fact sheets and case studies

Visit the site: <http://tinyurl.com/DOER-CERT>